**DOCKET NO.:** NIHA-0096 **Application No.:** 09/653,433

Office Action Dated: August 16, 2002

This listing of claims will replace all prior versions, and listings, of claims in the application.

## **Listing of Claims:**

- 1. (Currently Amended) A method of inducing, in a human, serum antibodies which protect against infection with S. *typhi*, comprising administering to said human, a composition comprising a molecular conjugate of the S. *typhi* Vi polysaccharide derived from s. *tvphi* comprising an N-acetyl group and covalently bound through an adipic a carboxylic acid dihydrazide linker to *Pseudomonas aeruginosa* recombinant exoprotein A in a pharmaceutically acceptable carrier.
- 2. (Canceled) The method of claim 1 wherein the S. *typhi* Vi polysaccharide is covalently bound to the rEPA by means of an adipic acid dihydrazide linker.
- 3. (Previously Amended) The method of claim 1 wherein said conjugate molecule is administered at a dose of about 3 micrograms to about 50 micrograms of S. *typhi* Vi polysaccharide.
- 4. (Original) The method of claim 3 wherein said conjugate molecule is administered at a dose of about 25 micrograms of Vi polysaccharide.
- 5. (Previously Amended) The method of claim 1 wherein the antibodies protect the human against infection by S. *typhi*.
- 6. (Canceled) A composition comprising antibodies which are immunoreactive with S. *typhi* Vi polysaccharide, said antibodies being obtained from a human after administration to said human of a composition comprising a conjugate molecule comprising the S. *typhi* Vi polysaccharide covalently bound through a carboxylic acid dihydrazide linker to *Pseudomonas aeruginosa* recombinant exoprotein A.

DOCKET NO.: NIHA-6096 Application No.: 09/653,433

Office Action Dated: August 16, 2002

7. (Canceled) The composition of claim 6, further comprising antibodies which are immunoreactive with ETA.

- 8. (Canceled) The composition of claim 6, wherein the composition is chosen from the group consisting of plasma, serum, and gamma globulin fraction.
- 9. (Canceled) The composition of claim 7, wherein the composition is chosen from the group consisting of plasma, serum, and gamma globulin fraction.
- 10. (Canceled) An antibody which is immunoreactive with S. *typhi* Vi polysaccharide which is obtained from a human, after administration to said human of a composition comprising a conjugate molecule comprising the S. *typhi* Vi polysaccharide covalently bound through a carboxylic acid dihydrazide linker to *Pseudomonas aeruginosa* recombinant exoprotein A.
- 11. (Canceled) A method of passively immunizing a mammal against S. typhi, comprising administering to said mammal an immunologically sufficient amount of a composition according to anyone of claims 6-9.
- 12. (Currently Amended) A method for vaccinating a human against S. *typhi* infection, comprising administering to the human an immunizing amount of a composition comprising a molecular conjugate of S. *typhi* Vi polysaccharide derived from S. *typhi* comprising an N-acetyl group and covalently bound through an adipic a carboxylic dihydrazide linker to *Pseudomonas aeruginosa* recombinant exoprotein A in a pharmaceutically acceptable carrier,
- 13. (Canceled) The method of claim 12 wherein the S. *typhi* Vi polysaccharide is covalently bound to the *Pseudomonas aeruginosa* recombinant exoprotein A by means of an adipic acid dihydrazide linker.
- 14. (Currently Amended) A vaccine composition comprising an immunologically effective amount of a molecular conjugate of S. *typhi* Vi polysaccharide derived from S. *typhi* comprising an N-acetyl group and covalently



DOCKET NO.: NIHA-0096 Application No.: 09/653,433

Office Action Dated: August 16, 2002

bound through an adipie a carboxylic acid dihydrazide linker to *Pseudomonas* aeruginosa recombinant exoprotein A, in a pharmaceutically acceptable carrier.

15. (Canceled) The vaccine composition of claim 14 wherein the S. *typhi* Vi polysaccharide is covalently bound to the *Pseudomonas aeruginosa* recombinant exoprotein A by means of an adipic acid dihydrazide linker.

Old.

old.

- 16. (Original) The method of claim 5 wherein the human is a 2 to 3 year
- 17. (Original) The method of claim 5 wherein the human is a 4 to 5 year
- 18. (Original) The method of claim 5 wherein the human is a 5 to 14 year old.
  - 19. (Original) The method of claim 5 wherein the human is an adult.



- 20. (Original) The method of claim 12 wherein the human is a 2 to 3 year old.
- 21. (Original) The method of claim 12 wherein the human is a 4 to 5 year old.
- 22. (Original) The method of claim 12 wherein the human is a 5 to 14 year old.
  - 23. (Original) The method of claim 12 wherein the human is an adult.
- 24. (New) The method of claim 1 wherein said Vi polysaccharide is covalently bound to the rEPA by means of an adipic acid dihydrazide linker.

DOCKET NO.: NIHA-0096 Application No.: 09/653,433

Office Action Dated: August 16, 2002

25. (New) The method of claim 12 wherein the S. *typhi* Vi polysaccharide is covalently bound to the *Pseudomonas aeruginosa* recombinant exoprotein A by means of an adipic acid dihydrazide linker.

26. (New) The vaccine composition of claim 14 wherein the S. *typhi* Vi polysaccharide is covalently bound to the *Pseudomonas aeruginosa* recombinant exoprotein A by means of an adipic acid dihydrazide linker.